

## ABSTRACT

5 An exciter system (10) is provided for use in facilitating  
electromagnetic communication within an enclosed space (12). The system  
(10) includes an exciter (26) which may be in the form of a three  
dimensional hemispherical exciter (28) or a two dimensional planar sector  
exciter (30) depending on the size of the associated structure and the power  
requirements of operation. The exciter system (10) operates in conjunction  
10 with a hub/controller network (44). The exciter system (10) is adapted to  
induce a quasi-static evanescent field (20) within the space and to thereby  
enable communications using the evanescent field (20) at frequencies within  
an operational frequency range determined by the characteristics of the  
space. The exciter (26) is mounted in opposition to a portion of a  
15 conductive framework (18) within the enclosed space, and is separated  
therefrom. In operation, a coaxial connector (48) connects the exciter (26)  
to the hub/controller network (44) with the center conductor (50) connecting  
at a feed point (66) to the exciter (26) while the shield conductor (52) is  
connected to the opposing conductive framework (18). In some  
20 embodiments a post (40) acts as a curtain to enhance performance at lower  
frequencies

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